

OPIOIDS AND INJECTION DRUG USE

CDC reports that most new infections of hepatitis C in the United States are transmitted via shared needles or other injection materials, such as cookers or cotton; 73% of acute hepatitis C cases with identified risks were people who inject drugs (PWID) in an MMWR published by CDC (Zibbell, 2015). New cases of hepatitis C nationwide have occurred primarily among young, White, non-urban PWID and individuals with a history of prescription opioid use (CDC, 2016). PWID are at high risk for HCV infection. Approximately one in three young (aged 18-30 years) PWID and 70-90% of older or former PWID are infected with HCV (CDC, 2013).

One quarter of PWID become infected with HCV within two years of injection initiation (Page, 2013). HCV has extremely high infectivity through blood borne transmission; a person is 10 to 30 times more likely to become infected with HCV than with HIV through a contaminated needle stick or similar direct blood exposure (CDC, 2020). HCV can remain viable in liquid and dried blood, contaminated needles and syringes, and inanimate objects and surfaces for several weeks.

Since 2015, the number of treatment center admissions for heroin continued to increase, while the admissions for other opiates and synthetics began to decrease (Figure 1). Since 2015, treatment center admissions among people who use methamphetamines and report IDU steadily increased. The percentage of people who reported injecting drugs and using methamphetamines increased 230% from 2015 to 2018 (Figure 2). The percentage of individuals who reported IDU and heroin use remained mostly stable, whereas the percentage of other opiates and synthetics and IDU decreased by 33%.

Figure 1. Total drug treatment admissions in Virginia with reported IDU, by primary drug (TEDS-A, 2015-2018).

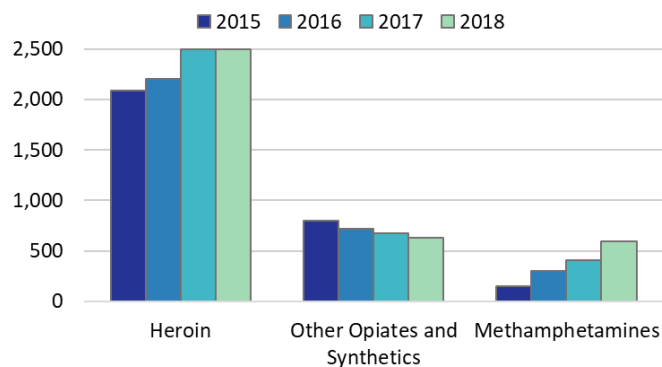
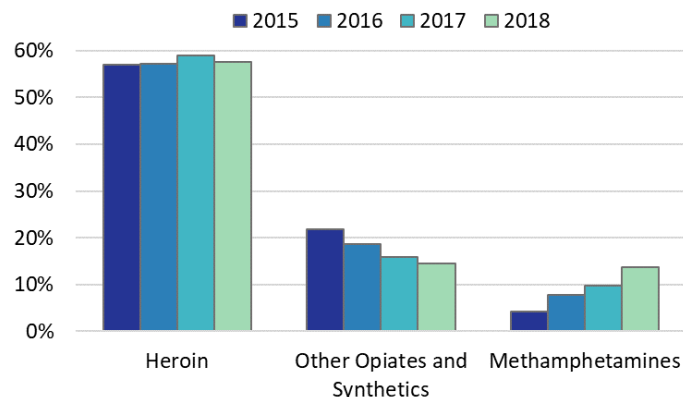


Figure 2. Percent of drug treatment admissions in Virginia in which IDU is reported, by opioids reported (TEDS-A, 2015-2018).



Drug treatment admissions

The Substance Abuse and Mental Health Services Administration (SAMHSA) Treatment Episode Data Set - Admissions (TEDS-A) provides data on individual drug treatment center admissions for individuals who are 12 years old or older in the United States. Because these data are based on admissions, patients with multiple admissions may be represented more than once. Further, treatment admissions data includes admissions for all substances, including those acquired both legally (e.g., alcohol or prescribed medication) and illegally (e.g., heroin, cocaine, and other illegal substances, or illegally purchased prescription drugs). These data do not represent all drug treatment admissions in the United States.

Generally, facilities reporting TEDS data are those that receive state alcohol and/or drug agency funds, including federal block grant funds, for the provision of alcohol and/or drug treatment services.

Although there were more treatment center admissions for heroin use among PWID (58%) than admissions for methamphetamines (14%), the methamphetamine group is growing quickly. The percentage of admissions of people who use methamphetamines and are PWID increased from 4% to almost 14% from 2015 to 2018. People who use heroin and are PWID remains relatively stable with a range of 57% to 59% from 2015 to 2018.

A 2014 SAMHSA report found that there has been a significant increase in hospitalizations for opioid misuse, and nearly 2.4 million Americans have a substance use disorder (SUD) related to prescription opioids. Approximately 500,000 Americans have a SUD related to heroin (Mir, 2016). In 2018, 25.3% (up from 11.1% in 2014) of all admissions to drug treatment centers listed heroin as the primary substance of abuse. Other opiates were reported as the primary substance in 7.6% of admissions.

**APCD does not include all prescriptions, including Medicare fee-for-service and self-pay (i.e., no payment through an insurer).*

APCD does not include all prescriptions including Medicare Part D coverage and self-pay (i.e. no payment through an insurer), but 2019 APCD does contain data related to Medicare fee-for-service.

Prescription opioids and heroin

Individuals abusing prescription opioids are at high risk for HCV infection and other blood borne pathogens if they inject or insufflate (snort) using shared materials. Of prescriptions available from the All Payer Claims Database (APCD), opioid prescriptions in 2014 were highest in the far Southwest region of Virginia at up to 137.3 prescriptions per 100 people (Figure 3a). This trend persists in 2019, although at a lower rate, up

to 84.9 prescriptions per 100 people (Figure 3b). Because APCD does not capture all prescriptions filled statewide, the true number is likely higher, especially so in 2014 when fewer Medicaid prescriptions were captured. Patients who self-pay for prescriptions (i.e., do not pay through an insurer) are not included in this dataset and may represent a significant portion of misused opioid prescriptions acquired through licensed pharmacies in Virginia.

Figure 3a. Opioid prescriptions per 100 people, 2014 (APCD*).

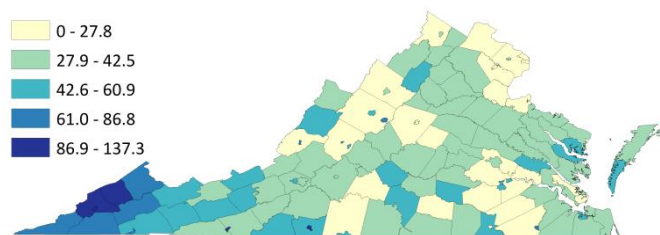
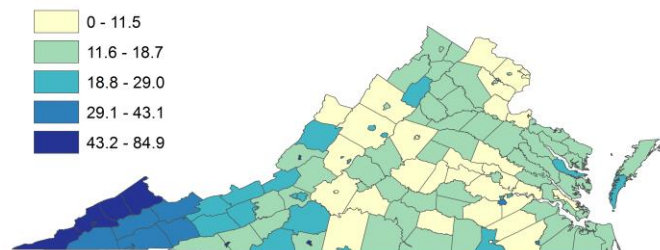


Figure 3b. Opioid prescriptions per 100 people, 2019 (APCD*).



Those admitted primarily for heroin and other opioids in 2018 were disproportionately 35 years of age or younger (Fig. 4) and White (Fig. 5), particularly in comparison to individuals admitted primarily for alcohol or cocaine.

Figure 4. Percent of age at time of admission, by primary drug of use, Virginia, 2018. TEDS-A (SAMHSA).

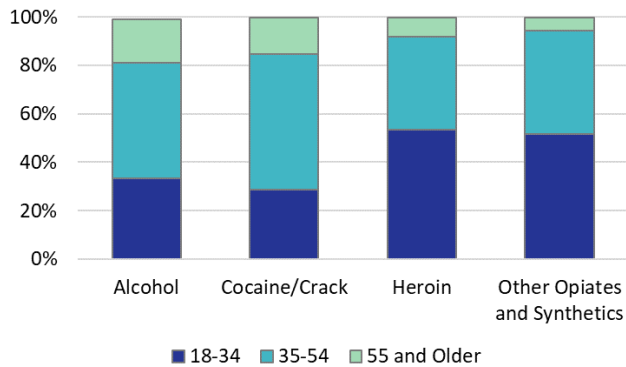
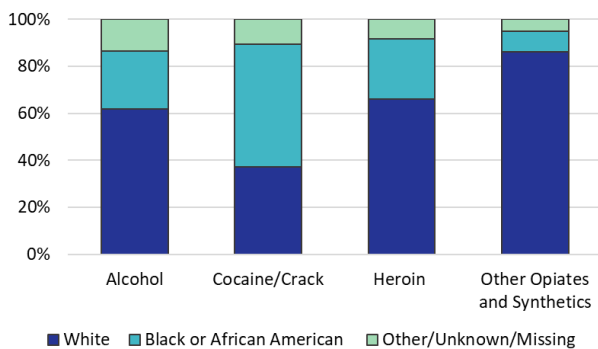


Figure 5. Percent of admissions by race, by primary drug of use, Virginia, 2018. TEDS-A (SAMHSA).



Fatal overdose

According to the Office of the Chief Medical Examiner (OCME) fatal drug/poison overdoses increased annually between 2012 and 2017. In 2018, for the first time since 2012, the number of drug/poisoning deaths decreased compared to the prior year (Figure 6). In Virginia, illicit opioids like heroin and illicit fentanyl have the highest mortality rates in urban localities, whereas prescription opioids have the highest mortality rates in rural areas (Figures 7 and 8, respectively) (OCME, 2018).

Figure 6. Number and rate of fatal drug/poison overdoses by year of death, 2012-2018 (OCME).

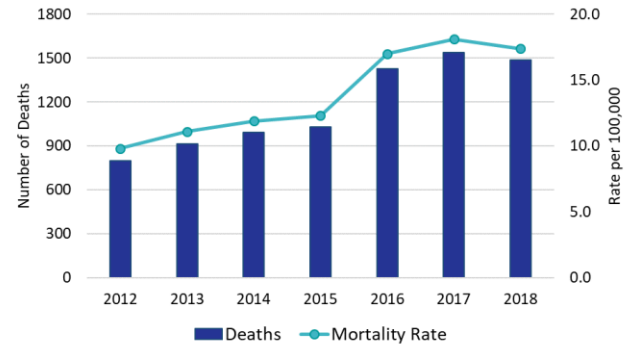


Figure 7. Fatal heroin and/or fentanyl overdose rate per 100,000. 2018 (OCME).

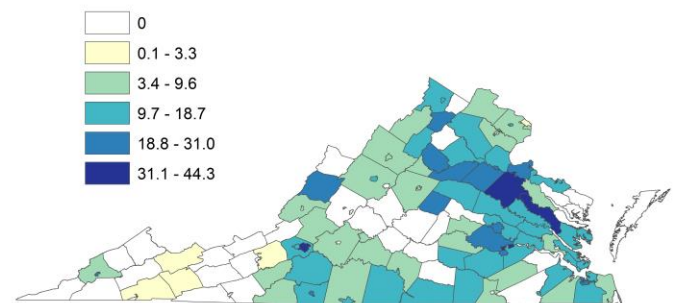
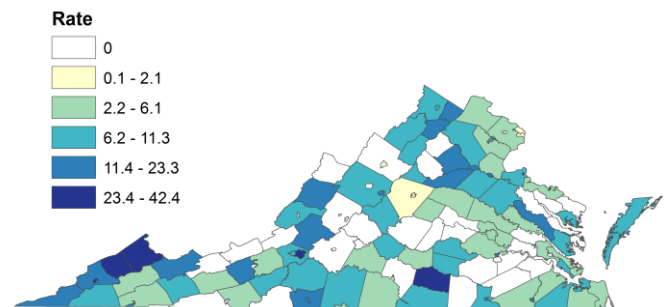


Figure 8. Fatal prescription opioid (excluding fentanyl) overdoses per 100,000. 2018 (OCME).

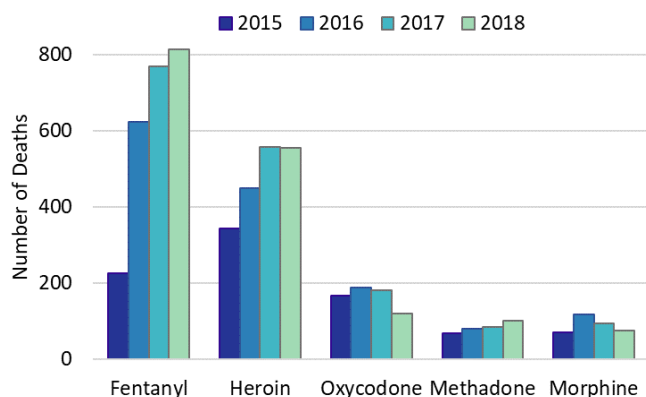


Heroin and Fentanyl

National surveys have identified a nationwide increase in first-time heroin use (Zibbell, 2015). The number of fatal fentanyl and/or heroin overdoses significantly increased each year since 2010. Illicitly produced fentanyl began appearing in Virginia in 2013-2014 and is often mixed with or sold disguised as heroin (OCME, 2018). Of fatal heroin overdoses, over 98% were deemed accidental. Fentanyl and/or heroin deaths most

frequently occurred in White males and males aged 25-34 years. Fentanyl and/or heroin was involved in 64.7% of all drug/poison cases in Virginia in 2018. The Central OCME district had the highest number of fentanyl and/or heroin fatal overdoses (OCME, 2018). The number of deaths that fentanyl caused or contributed to significantly increased each year from 2015 to 2018 (Figure 9). Prescription opioid abuse is often a precursor to initiation of heroin, as heroin is frequently less expensive and easier to prepare for injection than opioids in pill form (National Drug Threat Assessment, 2011; Cicero, 2012).

Figure 9. Number of opioids causing or contributing to fatal opioid overdoses, 2015-2018 (OCME).



Prescription opioids

Prior to 2015, the largest number of fatal drug overdoses were attributed to prescription opioids. Although heroin and/or fentanyl deaths surpassed prescription opioid deaths in 2015, one or more prescription opioids (excluding fentanyl) still represents 32.1% of all fatal drug overdoses in 2018 (OCME, 2018). Prescription opioids detected in fatal overdoses vary based on geography. Oxycodone is detected most commonly in the Western OCME district, morphine is common in the Northern district, and codeine more common in Tidewater (Figure 10). In 2018, oxycodone continued to be the most common prescription opioid causing or contributing to death (Figure 11).

Figure 10. Number of prescription opioids (excluding fentanyl) detected in fatal drug overdoses, by region, 2018 (Top 5) (OCME).

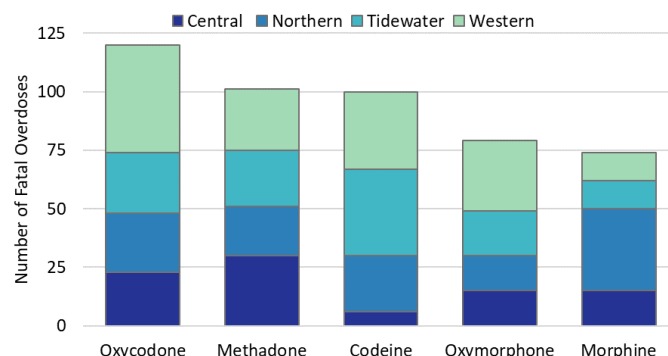
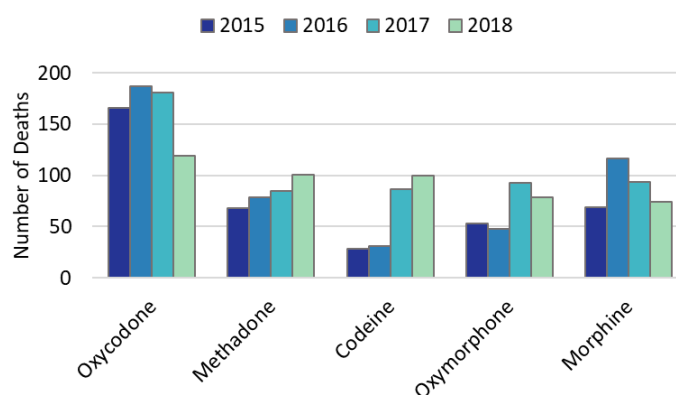


Figure 11. Number of prescription opioids (Excluding fentanyl) causing or contributing to death in fatal drug/poison overdose, 2015-2018 (Top 5) (OCME).

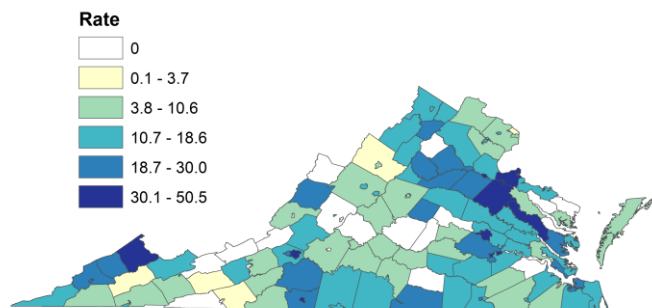


Because HCV and other blood-borne pathogens, including HBV and HIV, are highly transmissible via shared needles, cookers, and other injection materials, these increases are concerning due to both the direct risks of drug abuse and addiction (such as fatal overdose) and the other risks associated with unsafe injection practices (such as HCV infection).

In 2018, 32.1% of the 1,486 drug/poison deaths in Virginia involved prescription opioids. Prior to 2015, the largest number of fatal drug overdoses were attributed to prescription opioids. Eighty-nine percent of fatal prescription opioid overdoses were deemed accidental, 9.2% suicide, and 1.1% undetermined. Seventy-five percent of fatal

prescription opioid overdoses occurred in White individuals. For all opioid deaths (prescription opioids and heroin and/or fentanyl) males aged 25-34 and 35-44 had the highest mortality rates (41.1 and 41.9 deaths per 100,000 persons respectively). The geographic distribution of the rate of all fatal opioid overdoses is shown in Figure 12. Out of all opioids in 2018, fentanyl (prescription, illicit, and analogs) were responsible for the largest number of deaths (OCME, 2018).

Figure 12. All fatal opioid overdoses per 100,000 2018 (OCME).



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